

**Montana Board of Oil and Gas Conservation  
Environmental Assessment**

**Operator:** KeeSun Corporation  
**Well Name/Number:** Johnston 1-31  
**Location:** NE NE Section 31 T33N R4W  
**County:** Toole MT; Field (or Wildcat) Wildcat

**Air Quality**

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig, about 500 HP (Estimated) to drill to 2900' TD.

Possible H2S gas production: No, no H2S anticipated.

In/near Class I air quality area: No not in a Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: No special concerns – using small rig to drill to 2900' TD.

**Water Quality**

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system, air, air mist.

High water table: No high water table anticipated.

Surface drainage leads to live water: Yes, closest drainage is an unnamed ephemeral drainage, about ¼ of a mile to the northeast from this location. Within this unnamed drainage are stock ponds.

Water well contamination: No, closest water wells are about 3/8 of a mile to the east, 5/8 of a mile to the west southwest and 5/8 of a mile south from this location. Depth of these water domestic and stock water wells range from 100' to 120'. Surface hole in this well will be drilled to 300' with freshwater and/or air. Steel surface casing will be run and cemented to surface to protect ground water if any.

Porous/permeable soils: No, sandy silty bentonitic soils.

Class I stream drainage: No Class I stream drainages.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: \_\_\_\_\_

Comments: 300' of surface casing cemented to surface adequate to protect freshwater zones. Also, air/air mist and/or fresh water mud systems to be used.

**Soils/Vegetation/Land Use**

(possible concerns)

Stream crossings: No, stream crossings anticipated.

High erosion potential: No, small cut, up to 2.5' and small fill, up to 3.7', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 200'X200' location size required.

Damage to improvements: Slight, surface use is a grass land.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other \_\_\_\_\_

Comments: Access will be over existing state highway #2 and existing two track ranch trail. About 200' of new access will be built into this location from the existing ranch trail. Cuttings will be buried in and unlined earthen pit. Drilling fluids if used will be allowed to dry in the pit. Pits will be backfilled after drying. No special concerns.

## Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within 1 mile from this location.

Possibility of H2S: No H2S anticipated.

Size of rig/length of drilling time: Small drilling rig/short 3 to 4 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: Adequate surface casing and operational BOP should mitigate any problems. No concerns

## Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Only species identified as threatened or endangered is the Black-footed Ferret.

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other: \_\_\_\_\_

Comments: Private surface grassland. No concerns

### Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

☐ avoidance (topographic tolerance, location exception)

☐ other agency review (SHPO, DSL, federal agencies)

☐ Other: \_\_\_\_\_

Comments: Private surface lands, grasslands. No concerns.

---

### Social/Economic

(possible concerns)

☐ Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: No concerns.

### Remarks or Special Concerns for this site

Well is a 2900' Rierdon Formation test.

### Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated. Location is about 6000' south of the nearest wind generation towers.

---

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ Steven Sasaki \_\_\_\_\_

(title:) Chief Field Inspector

Date: May 28, 2010

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website \_\_\_\_\_

(Name and Agency)

Toole County water wells. \_\_\_\_\_

(subject discussed)

May 19, 2010 \_\_\_\_\_

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES

MONTANA COUNTIES, Toole County

(subject discussed)

May 19, 2010

(date)

If location was inspected before permit approval:

Inspection date: 5/24/10

Inspector: Klotz

Others present during inspection: None